

METHOD AND SYSTEM FOR DETECTING ARTIFACTS IN ICU
PATIENT RECORDS BY DATA FUSION AND HYPOTHESIS TESTING

ABSTRACT

A method for monitoring a patient employs hypothesis testing against each of several monitored signals to determine whether an artifact is present in the monitored signals. In the hypothesis testing, a null hypothesis includes an assumption that pairs of samples of highly correlated monitored signals of the several monitored signals have a predetermined distribution. The method determines that an artifact may exist in one of the monitored signals when the likelihood that the null hypothesis is true falls below a predetermined confidence value. This method can be embodied in an intelligent module for processing multiple data from one or more patients to filter out clinically significant changes in the patient from those changes caused by artifacts.